



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

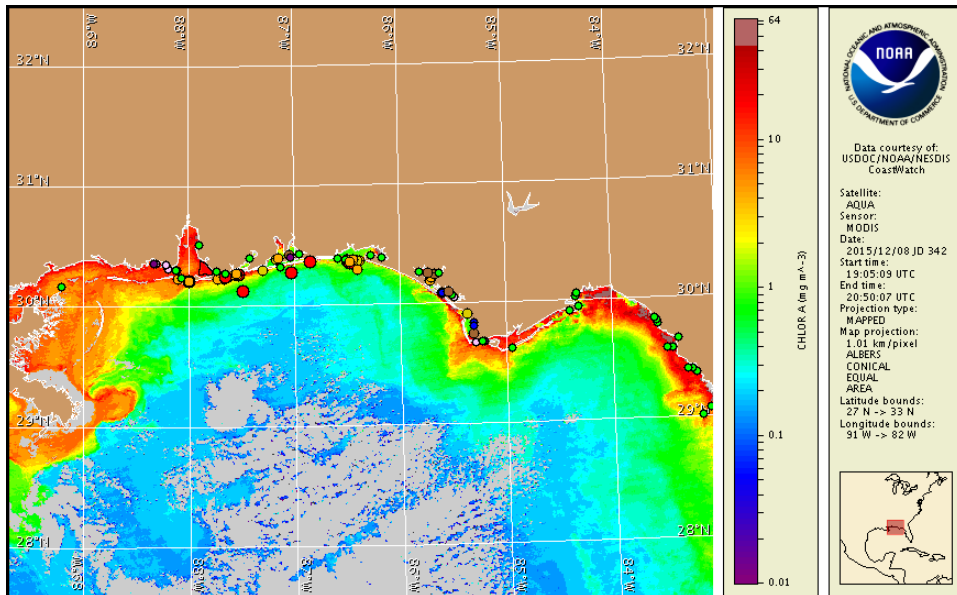
Thursday, 10 December 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 7, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 30 to December 9: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information for Florida can be obtained through FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/redtidestatus>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore Mobile and Baldwin counties in Alabama and portions of northwest Florida from Escambia to Gulf counties. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for alongshore Alabama and northwest Florida Thursday, December 10 to Monday, December 14 is listed below:

County Region: Forecast (Duration)

Mobile County: Moderate (Th-Sa), High (Su-M)

Baldwin County: High (Th-Su), Low (M)

Baldwin County, bay regions: Moderate (Th-M)

Escambia County: High (Th-M)

Escambia County, bay regions: Moderate (Th-M)

Santa Rosa County: High (Th-M)

Santa Rosa County, bay regions: Moderate (Th-M)

Okaloosa County: High (Th-M)

Okaloosa County, bay regions: Moderate (Th-M)

Walton County: Moderate (Th-Sa), High (Su-M)

Bay County, bay regions: Moderate (Th-Sa), High (Su-M)

Gulf County: Very Low (Th-Sa), Moderate (Su-M)

Gulf County, west bay regions-St. Joseph Bay area: Low (Th-M)

Gulf County, east bay regions-Indian Lagoon area: Very Low (Th-M)

Franklin County, bay regions: None (Th-Sa), Very Low (Su-M)

All Other NWFL County Regions: None expected (Th-M)

SWFL County Regions: Visit <http://tidesandcurrents.noaa.gov/hab/#swfl>

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Reports of respiratory irritation have been received from Baldwin County, Alabama and Okaloosa, Escambia, and Walton Counties in northwest Florida over the past several days. Reports of dead fish have been received from Mobile and Baldwin counties in Alabama and Escambia, Okaloosa, Bay, and Gulf counties in northwest Florida.

Analysis

Samples collected from Alabama and northwest Florida indicate the presence of *Karenia brevis* alongshore from Mobile County, Alabama to Gulf County, Florida. Recent water samples confirm up to 'high' concentrations of *K. brevis* alongshore near Fort Morgan and Gulf State Park in Baldwin County, Alabama (ADPH; 12/7), at Navarre Beach in Escambia County, and at Destin Beach in Okaloosa County (FWRI; 12/3-8). 'Medium' concentrations are present alongshore Alabama and northwest Florida from Baldwin to Walton counties, within Pensacola Bay, and in the bay region of Bay County (ADPH, FWRI; 12/3-8). Additional sampling indicates 'very low a' to 'low b' *K. brevis* concentrations alongshore and in the bay regions of Gulf County (FWRI; 12/7-8). Samples collected from Louisiana over the past few weeks indicate that *K. brevis* is not present (FDA;

11/9-30).

Reports of respiratory irritation have been received from Mobile and Baldwin counties in Alabama (ADPH; 12/4-8), and Okaloosa, Escambia and Walton Counties in northwest Florida over the past several days (FWRI; 12/2-8). Reports of dead fish have been received from Escambia and Walton counties, Henderson Beach State Park in Okaloosa County, St. Andrews Bay in Bay County, and St. Joseph Bay in Gulf County in northwest Florida (FWRI, MDMR; 12/1-9). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/redtidestatus>.

In recent ensemble imagery (MODIS Aqua, 12/8), patches of elevated to very high chlorophyll (2 to $>20\mu\text{g/L}$) with the optical characteristics of *K. brevis* are visible along- and offshore from Louisiana to Franklin County in northwest Florida. Additional sampling along- and offshore Louisiana and Mississippi is recommended to determine potential *K. brevis* presence in the region.

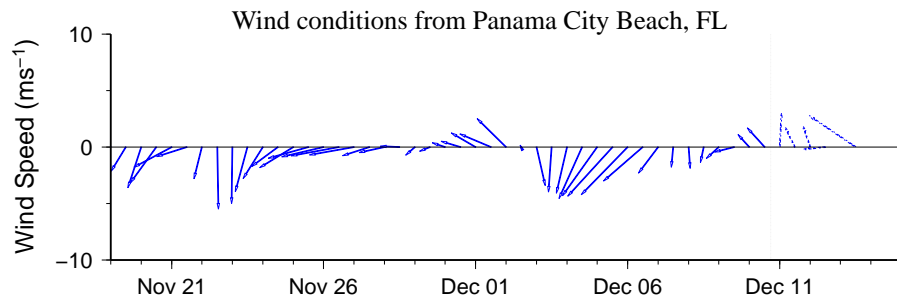
Predominantly onshore winds forecasted today through Saturday will increase the potential for impacts along the coasts of Alabama and northwest Florida.

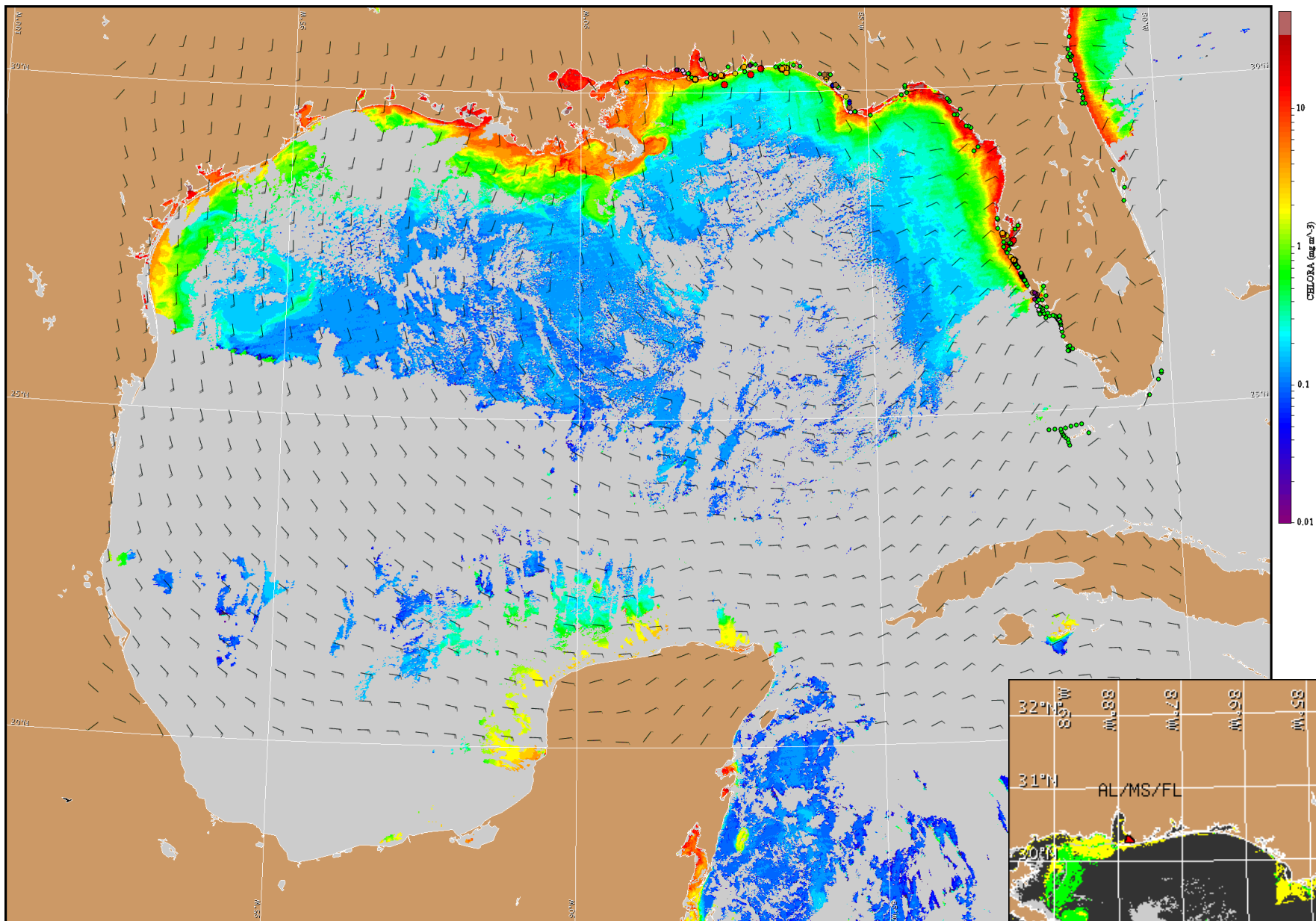
Keeney, Derner

-2-

Wind Analysis

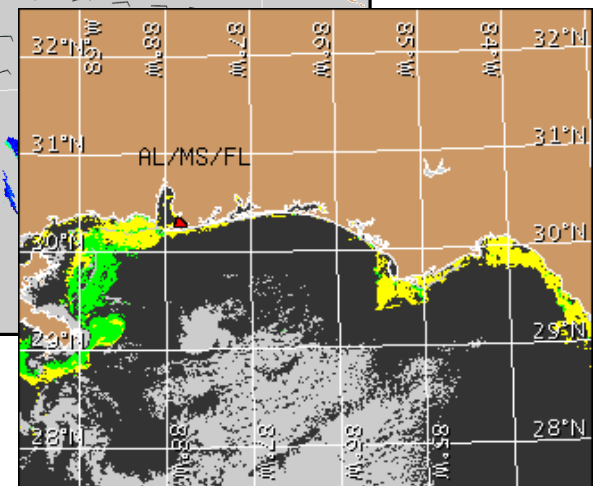
Escambia to Gulf counties: South to southeast winds (5-20kn, 3-10m/s) today through Sunday evening. Northwest winds (10-15kn, 5-8m/s) Monday.





Satellite chlorophyll image and forecast winds for December 11, 2015 12Z with points representing cell concentration sampling data from November 30 to December 9: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf



Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).